

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of claims in the application:

1-9. (Canceled)

10. (Previously presented) A vector comprising the nucleic acid of claim 41.

11. (Previously presented) The vector of claim 10, wherein said vector is an expression vector.

12. (Previously presented) The vector of claim 10 that is a prokaryotic vector.

13. (Previously presented) The vector of claim 10 that is a eukaryotic vector.

14. (Previously presented) A host cell comprising the vector of claim 10.

15. (Previously presented) A host cell of claim 14 that is a prokaryotic cell.

16. (Previously presented) A host cell of claim 14 that is a eukaryotic cell.

17-40. (Canceled)

41. (Currently amended) An isolated nucleic acid comprising a nucleotide sequence selected from the group consisting of:

- (a) ~~the~~ a nucleotide sequence as set forth in SEQ ID NO: 2;
- (b) a nucleotide sequence encoding the polypeptide as set forth in SEQ ID NO: 7;
- (c) a nucleotide sequence complementary to (a) or (b).

42. (Canceled)

43. (Currently amended) An isolated nucleic acid comprising a nucleic acid sequence that is at least 90% identical to ~~the sequence of the nucleic acid sequence of claim 41~~ a nucleotide sequence encoding SEQ ID NO:7, and which isolated nucleic acid encodes a polypeptide that is capable of regulating progesterone biosynthesis, or the complement thereof.

44. (Currently amended) An isolated nucleic acid comprising a nucleic acid sequence that is at least 90% identical to ~~the sequence of the nucleic acid sequence of claim 41~~ a nucleotide sequence encoding SEQ ID NO:7, and which isolated nucleic acid encodes a polypeptide that impairs cholesterol delivery, or the complement thereof.

45. (Canceled)

46. (Previously presented) An isolated nucleic acid that encodes a polypeptide that is capable of regulating progesterone biosynthesis and hybridizes to the complement of the nucleic acid of claim 41(a) or 41(b) under the following stringent conditions: a final wash in 0.1X SSC at 65°C.

47. (Previously presented) An isolated nucleic acid that encodes a polypeptide that impairs cholesterol delivery and hybridizes to the complement of the nucleic acid of claim 41(a) or 41(b) under the following stringent conditions: a final wash in 0.1X SSC at 65°C.

48. (Previously presented) A process of producing a peripheral-type benzodiazepine-associated protein (PAP) comprising culturing the host cell of either claim 15 or 16 under suitable conditions to express a peripheral-type benzodiazepine-associated protein-7 (PAP7) encoded by the nucleic acid.

49. (Previously presented) The process of claim 48, wherein the vector further comprises a heterologous promoter operatively linked to the nucleotide sequence encoding the peripheral-type benzodiazepine-associated protein-7 (PAP7) polypeptide.

50. (Previously presented) A reagent comprising a nucleic acid of claim 41, wherein the nucleic acid is detectably labeled.

51. (Previously presented) A reagent comprising a single-stranded nucleic acid of claim 41, wherein the nucleic acid is complementary and is detectably labeled.

52. (Previously presented) A reagent comprising a single-stranded nucleic acid of claim 41, wherein the nucleic acid amplifies peripheral-type benzodiazepine-receptor-associated protein-7 (PAP7) sequences.

53-56. (Canceled)

57. (Previously presented) A vector comprising the nucleic acid of claim 43.

58. (Previously presented) A host cell comprising the vector of claim 57.

59. (Previously presented) A process of producing a peripheral-type benzodiazepine-receptor-associated protein (PAP) comprising culturing the host cell of claim 58 under suitable conditions to express a peripheral-type benzodiazepine-receptor-associated protein-7 (PAP7) encoded by the nucleic acid.

60. (Previously presented) A reagent comprising a nucleic acid of claim 43, wherein the nucleic acid is detectably labeled.

61. (Previously presented) A vector comprising the nucleic acid of claim 44.

62. (Previously presented) A host cell comprising the vector of claim 61.

63. (Previously presented) A process of producing a peripheral-type benzodiazepine-receptor-associated protein (PAP) comprising culturing the host cell of claim 62 under suitable conditions to express a peripheral-type benzodiazepine-receptor-associated protein-7 (PAP7) encoded by the nucleic acid.

64. (Previously presented) A reagent comprising a nucleic acid of claim 44, wherein the nucleic acid is detectably labeled.

65-68. (Canceled)

69. (Previously presented) A vector comprising the nucleic acid of claim 46.

70. (Previously presented) A host cell comprising the vector of claim 69.

71. (Previously presented) A process of producing a peripheral-type benzodiazepine-receptor-associated protein (PAP) comprising culturing the host cell of claim 70 under suitable conditions to express a peripheral-type benzodiazepine-receptor-associated protein-7 (PAP7) encoded by the nucleic acid.

72. (Previously presented) A reagent comprising a nucleic acid of claim 46, wherein the nucleic acid is detectably labeled.

73. (Previously presented) A vector comprising the nucleic acid of claim 47.

74. (Previously presented) A host cell comprising the vector of claim 73.

75. (Previously presented) A process of producing a peripheral-type benzodiazepine-receptor-associated protein (PAP) comprising culturing the host cell of claim 74 under suitable

conditions to express a peripheral-type benzodiazepine-receptor-associated protein-7 (PAP7) encoded by the nucleic acid.

76. (Previously presented) A reagent comprising a nucleic acid of claim 47, wherein the nucleic acid is detectably labeled.

77. (New) An isolated nucleic acid comprising a nucleic acid sequence that is at least 90% identical to a nucleotide sequence encoding SEQ ID NO:7, which isolated nucleic acid encodes a polypeptide that increases cholesterol delivery, or the complement thereof.

78. (New) The isolated nucleic acid of claim 77, wherein the nucleic acid sequence is at least 90% identical to SEQ ID NO:2, which isolated nucleic acid encodes a polypeptide that increases cholesterol delivery, or the complement thereof.

79. (New) An isolated nucleic acid that encodes a polypeptide that increases cholesterol delivery and hybridizes to the complement of the nucleic acid of claim 41(a) or 41(b) under the following stringent conditions: a final wash in 0.1X SSC at 65°C.

80. (New) The isolated nucleic acid of claim 43, wherein the nucleic acid sequence is at least 90% identical to SEQ ID NO:2, which isolated nucleic acid encodes a polypeptide that is capable of regulating progesterone biosynthesis, or the complement thereof.

81. (New) The isolated nucleic acid of claim 44, wherein the nucleic acid sequence is at least 90% identical to SEQ ID NO:2, which isolated nucleic acid encodes a polypeptide that impairs cholesterol delivery, or the complement thereof.

82. (New) An isolated nucleic acid comprising a nucleic acid sequence encoding SEQ ID NO:7 and variants thereof that are at least 90% identical to the nucleic acid sequence, which isolated nucleic acid encodes a polypeptide that facilitates cholesterol transport from the outer mitochondrial membrane to the inner mitochondrial membrane.